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(54) Title: PLANT DIACYLGLYCEROL ACYLTRANSFERASES

SEQ ID NO:25 MG-----DRGGA-----GSSRRRTGSRVS-----VQGGSGPKVEEDEVDAVVS
SEQ ID NO:26 MAILDSAGVTTVTENGGEFVDLRLRRRKSRSDDSSNGLLLSGSDNNSPDDVGAPADV
SEQ ID NO:02 MAILDSAGVTTVTENGGEFVDLRLRRRKSRSDDSSNGLLLSGSDNNSPDDVGAPADV
SEQ ID NO:08 -----
SEQ ID NO:14 MVGSDGDG-----DGGGGEAHAGGPRRRAGQ-----LRGLRDEAAGSPRRPRFR
SEQ ID NO:16 MAISDEPESVATA-----LNHSSLRRRPSATSTAGLFNSPETTTDSSGDDLAKDSGSD
SEQ ID NO:22 MSKGNPDPLP-----GSFLPSHGGPPPKPTPRTFRNLPSSTHGPAPSVAATAT
1 60

SEQ ID NO:25 PDLGAGGDAPAPAPAPAHTRDKDGRTSVGDG-----YW-----DLRCHRLQD
SEQ ID NO:26 DRIDSVVNDDAQGTANLAGDNNGGGDNNGGGGEGRGNADATFTYRPSV-PAHRRARE
SEQ ID NO:02 DRIDSVVNDDAQGTANLAGDNNGGGDNNGGGGEGRGNADATFTYRPSV-PAHRRARE
SEQ ID NO:08 -----
SEQ ID NO:14 PRPRG-----GDSNGRSVLRPGG-----GGGRGGGGDFS-----APTFRAA-APVHRKAKE
SEQ ID NO:16 DSINS-----DDAAVNSQQQNEK-----QDTDFSVLKFAFYRPSV-PAHRKVKE
SEQ ID NO:22 TP-----PSASAPLPPTVHGEAAH-----GAAAAARRD-----ALLPGVGAHRRVKE
61 120

SEQ ID NO:25 SLFSSDSGFSNYR-GILNWCVMILSNARLFLENLIKYGILVDP-IQVVSLFLKDPYSW
SEQ ID NO:26 SPLSSDAIFKQSHAGLNLVVLIAVNSRLIENLMKYGWLIRTDWFSSRSRLRD---W
SEQ ID NO:02 SPLSSDAIFKQSHAGLNLVVLIAVNSRLIENLMKYGWLIRTDWFSSRSRLRD---W
SEQ ID NO:08 -----F-----NATSLRD---W
SEQ ID NO:14 SPLSSDAIFKQSHAGLNLVVLIAVNSRLIENLMKYGLIRAGFWFNDKSLRD---W
SEQ ID NO:16 SPLSSDTIFRQSHAGLNLVVLIAVNSRLIENLMKYGLIRAGFWFSSKSLRD---W
SEQ ID NO:22 SPLSSDAIFRQSHAGLNLVVLIAVNSRLIENLMKYGLIRAGFWFSARSLGD---W
121 180

(57) Abstract

This invention relates to an isolated nucleic acid fragment encoding a diacylglycerol acyltransferase. The invention also relates to the construction of a chimeric gene encoding all or a portion of the diacylglycerol acyltransferase, in sense or antisense orientation, wherein expression of the chimeric gene results in production of altered levels of the diacylglycerol acyltransferase in a transformed host cell.